

Claims

What is claimed is:

1. A system for cooling a structure comprising:
 - a removable polymeric sheet for covering an exterior surface of a structure;
 - a water distribution system integral with said polymeric sheet, said water distribution system allowing wetting of a surface of said sheet;
 - a water supply pipe providing water to said water distribution system;
 - a valve regulating water flow through said water supply tube;
 - a sensor proximate to said polymeric sheet sensing an environmental parameter; and
 - a control system that receives a signal from said sensor, wherein said control system may actuate said valve.
2. The system of claim 1, wherein said water distribution system is a network of drip tubes extending through said polymeric sheet.
3. The system of claim 1, wherein said polymeric sheet of material has a first side that contacts a structure surface and a second side that is exposed, wherein the second side is light reflective.
4. The system of claim 3, wherein said light reflective surface is white.

5. The system of claim 3, wherein said light reflective surface is mylar.

6. The system of claim 1, wherein said sensor is a temperature sensor.

7. The system of claim 1, further including a means for securing the polymeric sheet of material to the structure surface.

8. The system of claim 7, wherein said means for securing the polymeric sheet of material is a network of lateral and transverse cables.

9. The system of claim 7, wherein said means for securing the polymeric sheet of material is a support mesh affixed to a side of said material that contacts the structure surface.

10. The system of claim 1 further including a water conditioner connected between the water distribution system and the water supply tube.

11. The system of claim 10, wherein said water conditioner is a water softener.

12. A system for cooling a structure comprising:

a means for covering an area of an exterior surface of the structure;

a water distribution means integral with said means for covering an area of an exterior surface, said water distribution means in fluid communication with a water source;

a valve regulating water flow to said water distribution means;

a sensor proximate to said means for covering an area of an exterior surface, said sensor measuring an environmental parameter; and

a control means electronically linked to said sensor such that when said sensor detects a specified environmental condition, said valve may be activated, providing water distribution across the means for covering the area of the exterior surface of the structure.

13. The system of claim 12, wherein said water distribution means is a plurality of drip tubes extending through the polymeric sheet.

14. The system of claim 12, wherein said means for covering an area of an exterior surface of the structure is a removable polymeric sheet.

15. The system of claim 14, wherein said polymeric sheet of material has a first side that contacts a structure surface and a second side that is exposed, wherein the second side is light reflective.

16. The system of claim 12, wherein said sensor means is selected from a group consisting of a temperature sensor and a moisture sensor.

17. The system of claim 14, further including a means for securing the polymeric sheet to a structure.

18. The system of claim 12, further including a water conditioner connected to filter water introduced into the water distribution means.